

Audit Report



YEAR 2000 CONVERSION PROGRAM AT THE DUGWAY PROVING
GROUND MAJOR RANGE AND TEST FACILITY

Report No. 99-079

February 9, 1999

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Acronym

Y2K

Year 2000



INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
400 ARMY NAVY DRIVE
ARLINGTON, VIRGINIA 22202

February 9, 1999

MEMORANDUM FOR AUDITOR GENERAL OF THE ARMY

SUBJECT: Audit Report of Year 2000 Conversion Program at the Dugway Proving Ground Major Range and Test Facility (Report No. 99-079)

We are providing this report for your information and use. We provided a draft of this report on November 27, 1998. Because the report contained no findings or recommendations, written comments were not required.

We appreciate the courtesies extended to the audit staff. Questions on the audit should be directed to Mr. Raymond A. Spencer at (703) 604-9071 (DSN 664-9071) or Mr. Michael E. Simpson at (703) 604-8972 (DSN 664-8972). See Appendix B for the report distribution. Audit team members are listed inside the back cover.

A handwritten signature in black ink, reading "Robert J. Lieberman", is positioned above the typed name.

Robert J. Lieberman
Assistant Inspector General
for Auditing

Office of the Inspector General, DoD

Report No. 99-079
(Project No. 8AS-0032.13)

February 9, 1999

Year 2000 Conversion Program at the Dugway Proving Ground Major Range and Test Facility

Executive Summary

Introduction. This report is one of a series of reports being issued by the Inspector General, DoD, in accordance with an informal partnership with the Chief Information Officer, DoD, to monitor DoD efforts in addressing the year 2000 computing challenge.

Objectives. Our primary audit objective was to determine whether the Dugway Proving Ground range and test facility is adequately preparing its information technology systems to resolve date-processing issues for the year 2000 computing problem. Specifically, the objective was to determine whether the Dugway Proving Ground range and test facility complied with the DoD Year 2000 Management Plan.

Results. Dugway Proving Ground range and test facility is currently on schedule with renovating its business and test information systems for year 2000 compliance. We visited this range to determine the progress being made and the steps being taken to ensure year 2000 compliance. Dugway Proving Ground identified seven systems for assessment, developed contingency plans, tested all systems to ensure compliance or noncompliance, and maintained all the necessary documentation. The range met the Army's deadline of completing the renovation phase by September 1998. Six of the seven systems completed the implementation phase by December 31, 1998. The meteorology system completed the implementation phase in February 1999. See Part I for details of the audit results.

Management Comments. We provided a draft report on November 27, 1998. Because this report contained no recommendations, written comments were not required and none were received. Therefore, we are publishing this report in final form.

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Part I - Audit Results

Background

Because of the potential failure of computers to run or function throughout the Government, the President issued an Executive Order, "Year 2000 Conversion," February 4, 1998, making it policy that Federal agencies ensure that no critical Federal program experiences disruption because of the Y2K problem and that the head of each agency ensure that efforts to address the Y2K problem receive the highest priority attention in the agency.

DoD Y2K Management Plan. The Assistant Secretary of Defense (Command, Control, Communications, and Intelligence), in his role as the DoD Chief Information Officer, initially issued the "DoD Year 2000 Management Plan" (DoD Management Plan) in April 1997. The latest version was released in December 1998. The DoD Management Plan provides the overall DoD strategy and guidance for inventorying, prioritizing, repairing or retiring systems, and monitoring progress. The DoD Management Plan states that the DoD Chief Information Officer has overall responsibility for overseeing the DoD solution to the Y2K problem.

Also, the DoD Management Plan makes the DoD Components responsible for implementing the five-phase Y2K management process. The DoD Management Plan includes a description of the five-phase Y2K management process. The DoD target completion date for implementation of mission-critical systems was December 31, 1998, and for non-mission critical systems is March 31, 1999.

The Principal Staff Assistant in the Office of the Secretary of Defense for ranges and test facilities is the Under Secretary of Defense (Acquisition and Technology).

Army Strategy. The Army introduced an action plan and a revised "draft" version to outline the Army Y2K management strategy; provide guidance; define roles, responsibilities, and reporting requirements; and lay a foundation to ensure that no mission-critical failure occurs because of related problems. As it has in the past, the Army is placing special emphasis on mission-critical systems, but the Army's goal is to correct all Y2K-impacted systems and devices.

Army Y2K Database. The Army's Y2K Project Office created and maintains the Army Y2K database, which houses Y2K information for Army systems. The Y2K Project Office uses the information to prepare quarterly status reports on Army systems, identifies potential problems, and tracks progress through the five-phase management process. Initial population of the database began on September 30, 1996, and continues on a quarterly basis. An Army user's manual, posted to the Y2K Restricted Homepage, provides guidelines for using the database.

Objectives

Our primary audit objective was to determine whether the Dugway Proving Ground range and test facility is adequately preparing its information technology systems to resolve date-processing issues for the Y2K computing problem. Specifically, the audit determined whether the Dugway Proving Ground range and test facility has complied with the DoD Management Plan. Appendix A describes the audit scope and methodology.

Status of the Dugway Proving Ground Major Range and Test Facility Year 2000 Program

The Dugway Proving Ground range and test facility completed the renovation phase by September 1998. Six of the seven mission-critical systems completed the implementation phase by December 31, 1998. All required documentation and certification forms for six compliant systems have been completed as required by the Army Action Plan and the DoD Management Plan. The meteorology system completed the implementation phase in February 1999.

Year 2000 Program

Army Major Range and Test Facilities. The Army is renovating its business and test information systems for Y2K compliance at their major range and test facilities. We reviewed test systems at Dugway Proving Ground, Dugway, Utah.

Dugway Proving Ground identified 7 mission-critical systems (1337 inventory items). The Y2K project managers have assessed all of their test information systems and are on schedule for renovating or replacing them. Six systems were compliant and one system was noncompliant. We reviewed documentation certifying that the six systems are Y2K compliant. The project managers assessed the meteorology system, and determined that it is not Y2K compliant because 4 of the 163 line items are not Y2K compliant. Since our visit, a fix has been determined to get the four line items compliant. The fix for the meteorology system was installed and tested in January 1999. The Y2K certification form was signed February 4, 1999.

In reviewing documentation for the Y2K compliant Field Contractor System, we noted that a Government employee did not sign most of the certification forms on file. We reported this to senior management, who took action to ensure that a Government employee validated the contractor's work and certified that the Field Contractor System was Y2K compliant.

**Status of the Dugway Proving Ground Major Range and Test Facility
Year 2000 Program**

Y2K Certification Acid Test. Dugway Proving Ground conducted an acid test in the combined chemical test facility. The test consisted of a liquid/vapor challenge of swatches of candidate fabrics with a chemical agent to determine the amount of penetration and permeation through the swatches. The test ran successfully on November 30, 1998. Acid tests for the biological system and the business system are in the planning stage.

Conclusion. The Army is on schedule with renovating its business and test systems for Y2K compliance at Dugway Proving Ground range and test facility, although the facility has not been able to meet the DoD goal for Y2K compliance for all mission-critical systems by December 31, 1998. The Dugway Proving Ground has developed the inventory, tested systems, developed contingency plans where necessary, and maintained all the necessary documentation.

Part II - Additional Information

Appendix A. Audit Process

This is one of a series of reports being issued by the Inspector General, DoD, in accordance with an informal partnership with the Chief Information Officer, DoD, to monitor DoD efforts to address the Y2K computing challenge. For a listing of audit projects addressing this issue, see the Y2K WebPages on IGNET (<http://www.ignet.gov/>). The Director, Test, Systems Engineering and Evaluation, specifically requested that we visit Dugway Proving Ground range and test facility and determine the status of remediation of the Year 2000 computing problem.

Scope and Methodology

Work Performed. We concentrated on the preparation of the Army major range and test facilities automated information systems to resolve the Y2K computing problem.

We reviewed and evaluated the progress of the Dugway Proving Ground range and test facility in resolving the Y2K computing issue. We evaluated the Y2K effort of Dugway Proving Ground and compared its effort with the goals described in the DoD Management Plan, issued by the Assistant Secretary of Defense (Command, Control, Communications, and Intelligence) in April 1997 and the draft DoD Management Plan issued June 1998. We obtained documentation including the Army Materiel Command Year 2000 Action Plan, information on related Y2K contracts, the Army Y2K certification process, and various Y2K correspondence and reports. We did not review the management control program because DoD has acknowledged the Y2K computing problem as a material management control weakness area in the FY 1997 annual statement of assurance.

DoD-wide Corporate Level Government Performance and Results Act Goals. In response to the Government Performance and Results Act, the Department of Defense has established 6 DoD-wide corporate level performance objectives and 14 goals for meeting these objectives. This report pertains to achievement of the following objective and goal:

- **Objective:** Prepare now for the uncertain future.
- **Goal:** Pursue a focused modernization effort that maintains U.S. qualitative superiority in key war fighting capabilities. (DoD-3)

DoD Functional Area Reform Goals. Most major DoD functional areas have also established performance improvement reform objectives and goals. This report pertains to achievement for the following functional area objective and goal:

Information Technology Management Functional Area.

- **Objective:** Provide services that satisfy customer information needs.
- **Goal:** Upgrade technology base.(ITM-2.3)

General Accounting Office High-Risk Area. The General Accounting Office has identified several high-risk areas in the DoD. This report provides coverage of the Information Management and Technology high-risk area.

Use of Computer-Processed Data. We did not use computer-processed data or statistical sampling procedures for this audit.

Audit Type, Dates, and Standards. We performed this economy and efficiency audit from August through October 1998, in accordance with the auditing standards issued by the Comptroller General of the United States, as implemented by the Inspector General, DoD.

Contacts During the Audit. We visited or contacted individuals and organizations within the Department of the Army. Further details are available on request.

Summary of Prior Coverage

The General Accounting Office and the Inspector General, DoD, have conducted multiple reviews related to Y2K issues, although none has focused specifically on Army major range and test facilities. General Accounting Office reports can be accessed over the Internet at <http://www.gao.gov>. Inspector General, DoD, reports can be accessed over the Internet at <http://www.dodig.osd.mil>.

Appendix B. Report Distribution

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Assistant Secretary of Defense (Public Affairs)
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Department of the Army

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Chief Information Officer, Department of the Army
Inspector General, Department of the Army
Auditor General, Department of the Army
Commander, Army Materiel Command
Commander, Test and Evaluation Command
Commander, Dugway Proving Ground

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Senate Subcommittee on Defense, Committee on Appropriations
Senate Committee on Armed Services
Senate Committee on Governmental Affairs
Senate Special Committee on the Year 2000 Technology Problem
House Committee on Appropriations
House Subcommittee on Defense, Committee on Appropriations
House Committee on Armed Services
House Committee on Government Reform
House Subcommittee on Government Management, Information, and Technology,
Committee on Government Reform
House Subcommittee on National Security, Veterans Affairs and International
Relations, Committee on Government Reform

Audit Team Members

This report was prepared by the Acquisition Management Directorate, Office of the Assistant Inspector General for Auditing, DoD.

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